

App. Serial No. 10/505,187
Docket No.: DE020037US

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In the Claims:

Please amend claim 1 as indicated below. This listing of claims replaces all prior versions.

1. (*Currently Amended*) A method for the monitoring and management of data traffic in a communication system with several communication nodes which communicate via interfaces, monitored by a bus monitor, comprising the following steps:

- a) provision of a predefined communication time schedule for all communication nodes,
- b) initialization of the bus monitor,
- c) synchronization of the communication time schedule of the bus monitor with the predefined communication time schedule executed by the communication nodes in a distributed arrangement, the synchronization taking place on the basis of activities observed at the interfaces,
- d) monitoring of the activities of the communication nodes by the bus monitor,
- e) comparison of the activities with the predefined communication time schedule, and
- f) deactivation of the interface for a communication node for which an activity not compatible with the predefined communication time schedule has been detected.

2. (*Original*) A method as claimed in claim 1, characterized in that the activities of the communication nodes are monitored at each interface.

3. (*Original*) A method as claimed in claim 1, characterized in that the activities of several communication nodes are monitored centrally.

4. (*Original*) A method as claimed in claim 1, characterized in that the predefined communication time schedule contains a data packet of differing length for

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identifying an instant in the communication cycle which data packet is used by the bus monitor for the synchronization of the communication time schedule.

5. *(Original)* A method as claimed in claim 1, characterized in that the predefined communication time schedule contains a predetermined sequence of data packets for identifying an instant in the communication cycle, which sequence is used by the bus monitor for the synchronization of the communication time schedule.

6. *(Original)* A method as claimed in claim 1, characterized in that, through observation of the activities of all communication nodes, the bus monitor is continuously synchronized with the global clock time of the communication system.

7. *(Previously Presented)* A circuit arrangement for the monitoring and management of data traffic in a communication system with several communication nodes which communicate via interfaces, comprising

at least one active star coupler with connected communication nodes, there being provided a predefined communication time schedule for all communication nodes, and

a central bus monitor, which is connected to the active star coupler, after initialization of the bus monitor the communication time schedule of the bus monitor being synchronized with the predefined communication time schedule executed by the communication nodes in a distributed arrangement, which synchronization takes place on the basis of activities observed at the interfaces, which bus monitor monitors the activities of the communication nodes, compares the activities with the predefined communication time schedule, and deactivates the interface for a node for which an activity not compatible with the predefined communication time schedule has been detected.

8. *(Previously Presented)* A circuit arrangement as claimed in claim 7, characterized in that each interface is equipped with at least one activity detector.

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9. *(Previously Presented)* A circuit arrangement as claimed in claim 7, characterized in that an activity detector is allocated to the bus monitor, which activity detector reports the activities at the star point of the active star coupler.

10. *(Previously Presented)* A circuit arrangement as claimed in claim 7, characterized in that the bus monitor is combined with the active star coupler to form one unit.

11. *(Previously Presented)* The use of at least one circuit arrangement as claimed in claim 8, in a time-controlled communication system with active multiple star topology.